

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Hsiao et al.
Serial No: 09/595,713
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Title:



Atty Docket: SJO990202US1
Art Unit: 1746
Examiner: Olsen, Allan W.

**"MAGNETIC HEAD P1 MAGNETIC POLE NOTCHING WITH
REDUCED POLYMER DEPOSITION"**

Box Non Fee Amendment
Commissioner for Patents
Washington, D.C. 20231

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AMENDMENT

Sir:

Responsive to the Office Action mailed February 21, 2002, please amend the above-identified application as follows:

In the Specification

Please replace the paragraphs in the specification with like numbered paragraphs set forth below; a marked up version of these paragraphs is included herewith as Attachment A.

Page 5, Line 19 - Page 6, Line 16

The present invention involves the use of C_2F_6 gas in place of the CHF_3 as a first etchant gas in a two-step P1 notching process. As depicted in Fig. 3, in using a combination of C_2F_6 and argon (designated herein as C_2F_6/Ar) as a first etchant gas, etchant species are created that selectively etch the alumina write gap layer preferentially over the NiFe P2 pole tip material. As described in detail hereinbelow, the ion beam of C_2F_6/Ar etchant gas is preferably directed at a relatively steep angle 60 and subsequently at a relatively shallow angle 64. After the alumina write gap layer has been etched using C_2F_6/Ar to form notches 66 through the alumina layer 18,